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M E M O R A N D U M

TO: Mark Edsall, P.E.
FROM: Philip J. Grealy, Ph.D., P.E.
DATE: April 2, 2003
RE: Meadowbrook Estates
Town of New Windsor/Town of Cornwall, New York
PROJECT: No. 676

The following is our initial technical review of the Traffic Impact Study contained in the EAF dated December 20, 2002 for the above referenced development prepared by Tim Miller Associates, Inc.

- o As we understand, the Traffic Study has been forwarded to NYSDOT for their review. Comments from the NYSDOT should be obtained.
- o It appears that the Project has been reduced from some 181 single family homes to some 90 single family homes which is addressed in the Traffic Study.
- o The EAF addressed the "Five Corners" intersection in Appendix "F". This Appendix was missing from our document and had subsequently been forwarded to our office. It should be confirmed that Appendix "F" was forwarded to the NYSDOT.
- o The Existing Traffic Volumes appear reasonable.
- o The Existing traffic volumes were grown by an appropriate background growth rate of 2% per year to a 2005 Design Year. Would a Design Year of 2007/2008 be more appropriate?

- o Traffic for other proposed developments in the area was included as part of the No-Build Condition including traffic for The Reserve. However traffic for the recently approved Hannaford Supermarket was not included. A sensitivity analysis to include traffic for the Hannaford Supermarket should be provided. This may be significant for the Route 94 and Meadowbrook Road (East) intersection.
- o Access to the project is proposed to Meadowbrook Road (via Route 94) and through The Reserve. It appears by the site distribution figure (Figure 8) that 45% of the traffic will arrive and depart through The Reserve with 25% via Mt Airy Road and 20% via a new roadway (Independence Drive). Noting the above, the following should be considered:
 - Based on the review of the existing roadway network and existing traffic volumes, the 45% to/from Bethlehem Road appears to be high. Confirmation of the arrival and departure patterns should be provided. Depending on this information, a sensitivity analysis may be necessary assuming more traffic to/from the Meadowbrook Road access (Via Route 94).
 - Assuming the 45% through The Reserve, the time frame for the completion and opening of the new roadway may be critical, especially since the Design Year for the Meadowbrook Estates project is 2005. Depending on the time frame of The Reserve and the time frame of the new roadway, a sensitivity analysis assuming all site traffic utilizing Meadowbrook Road may be required.
- o Also, there the potential for some of The Reserve traffic to access Route 94 through Meadowbrook Estates. A sensitivity analysis should be conducted assuming more traffic to/from the Meadowbrook Road access (Via Route 94).

- o Meadowbrook Road (East) currently intersects Route 94 at an acute angle. The Applicant is proposing to realign the Meadowbrook Road east approach to improve current conditions. Based on the information provided, it appears that acceptable sight distance will be provide at the reconfigured Route 94/Meadowbrook Road (East) intersection with the proposed realignment of this intersection. The final configuration of this intersection will have to be reviewed with the NYSDOT.
- o Traffic Study indicates that the improvements to the intersection of Route 94 and Mount Airy Road/access to the Cornwall High School are anticipated to be in place prior to the opening of the High School.
- o The Traffic Study indicates that a separate left turn lane on Route 94 into Meadowbrook Road (East) would not be required. However, in consideration of the above distribution comments and additional traffic growth comments, the left turn lane requirement may have to be re-evaluated.
- o The Traffic Study indicates that the Route 94/Jackson Road intersection will operate at a Level of Service "F" with and without the proposed development. The Traffic Study also indicated that to improve the operation of this intersection, a traffic signal would be required under future conditions. This intersection should be monitored in the future to determine if traffic signal warrants will be met. In addition, depending on the above distribution comments and additional traffic growth comments, this intersection may have be re-evaluated.

- o As an editorial comment, on page 15 under heading 5.2 Build Level of Service, the opening sentence of "the proposed Meadowbrook Estates will be contributing 19 trips in the AM Peak and 24 trips in the PM peak" is unclear. Does this refer to the Route 94 and Meadowbrook Road (west) intersection. As noted on Table 8, the Project will generate a total of 73 AM trips and 97 PM trips to the area roadway network.
- o Figure 10 should show the Site Generated PM Peak Hour Traffic not the Build PM Peak Hour Traffic.

The above comments need to be addressed before we can finalize our review.